

AMENDMENTS TO THE SPECIFICATION

Please amend the Abstract beginning on page 34 at line 2 as follows:

A method and system for use in monitoring/evaluating industrial processes such as, for example, plasma processes are provided. ~~useful in the fabrication of semiconductor chips, microelectromechanical devices, and the like on semiconductor wafers and the like are provided.~~ In one embodiment, a plasma process fault detection module (100) includes multiple sub-modules ~~a data selection sub-module (101), a model building/updating sub-module (102), a principal component analysis (PCA) analysis sub-module (103), a model maintenance sub-module (104), a wafer categorization sub-module (105), and a data output sub-module (106).~~ The ~~A~~ data selection sub-module (101) obtains selected optical emissions spectra (OES) data for each wafer that is processed. The ~~A~~ model building/updating sub-module (102) constructs multiple models from the ~~selected~~ OES data for a number of wafers. The ~~A~~ principal component analysis (PCA) analysis sub-module (103) utilizes PCA techniques to determine whether the ~~selected~~ OES data for a particular wafer differs significantly from ~~that an~~ an expected ~~for a~~ normal wafer as represented by the models. The ~~A~~ model maintenance sub-module (104) saves and retrieves models for different processes, associating the current wafer with the correct process. The ~~A~~ wafer categorization sub-module (105) categorizes each wafer based on a scalar metric characterizing the residual spectrum vector. The ~~A~~ data output sub-module (106) outputs the results ~~that are obtained~~ to a user.